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TOO MANY COLLEGE STUDENTS?

BY ELMER ELLSWORTH BROWN

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A MAN of business met a college president, away from home and engaged in his customary avocation. The president told of a great crowd of young men clamoring for admission to college. The man of affairs replied, "When your pen is full, why don't you shut the gate?"

There we have the shortest and easiest way: other features of Bishop Hatto's method are not modern. An easy way for a single institution on a private foundation, but what about the country at large? And not altogether easy even in the case of a single institution, for the questions involved, both academic and financial, are nowise so simple as they seem. A tree that ceases to grow in a forest of growing trees has troubles of its own. But for the country at large, as President Angell has recently shown with startling clearness, a new problem of college attendance has appeared, which the obvious solutions fail to solve.

A bulletin recently issued by the Federal Bureau of Education (number 34 for the year 1920, prepared by Mr. H. R. Bonner) presents the statistics of the situation with instructive analyses. It shows the numbers of students in universities, colleges, and technological schools in this country as follows (using only the thousands in the published tables):

One hundred fifty-six thousand in 1890

One hundred ninety-seven thousand in 1900

Two hundred seventy-four thousand in 1910

Three hundred seventy-five thousand in 1918.

While the population of the country had increased 68 per cent, and the wealth per capita had increased 105 per cent, the student body of the colleges and universities had increased 139 per cent. The figures for 1918 were greatly reduced by the war. Even so

it appears that the rate of increase had been accelerated in the later years of this twenty-eight year period. The incomplete returns for the brief period since the war show a still more rapid increase, an accelerated acceleration; and recent estimates for the year 1920-21 run far over the half-million mark.

From all over the country comes the same story. The violent are taking this kingdom of education by force. Their importunity will not be denied. Already, according to well studied estimates, one person in every 61 of our adult population is found to be a college graduate, or one in 116 of the total population. It is a proportion more than twice as great as that in the Massachusetts Bay Colony, which is commonly placed at one in 250. What the seventeenth century graduate would think of the twentieth century graduate is another story, or what the twentieth century graduate would think of the seventeenth century graduate, if he really knew him.

One reason for this growth in the colleges is to be found in the growth of the high schools. The colleges are like a river fed by many tributaries, all of which have been swollen by freshets. The stream must continue its rapid rise for years to come, even if the freshets should subside—and there is no sign that they will subside.

We must note at this point one of our national characteristics which tends to keep open the channels leading from these middle schools to the colleges. The American people are incurably devoted to the doctrine formulated by Huxley just fifty years ago, of an educational ladder, "the bottom of which should be in the gutter and the top in the university." We cannot abide a blind alley which may not open out to something higher. And the widening of courses and departments of teaching in our universities is a development which plays up to this popular demand. So there is less wonder that already 42 per cent of the graduates of our high schools go on to college or to some other institution of higher grade, while 56 per cent of the graduates of private secondary schools do likewise.

What changes have there been in the life of our people since the year 1890 which may in some measure be reflected in these figures? The changes are too numerous for any extended review

in this article. But many of them are obvious enough. There are great advances in:

physical science and invention,
manufactures,
domestic trade, with its accompaniments of advertising, banking, and insurance,
foreign trade,
medicine and sanitation,
social thought and social experiment,
public sports and amusements.

The general advance has been less conspicuous in:

jurisprudence and the practice of law,
agriculture,
elementary education,
literature and the fine arts,
politics, ethics, and religion,

but certain developments in these fields also have been of vast significance.

A bill of particulars must be fragmentary at best. To this period belong the aëroplane, wireless telegraphy and telephony, the revolutionary discoveries in radio-activity, the conquest of yellow fever. Exploration has reached the two ends of the earth. We have joined the Atlantic and the Pacific Oceans. In this country, our last territories, except those in outlying areas, have become States, and our outlying dependencies have extended into the Eastern Hemisphere. We have sent our armies to fight on European soil. We have begun to think in international terms—boldly in the domain of religion, cautiously in commercial relations, and more than cautiously in politics. Governmental change has culminated in four amendments to our Federal Constitution. The relationships of government to industry have become more sharply defined, and industrial unrest has become more articulate. Electric transportation has had its great development. The automobile has grown from nothing to a dominant national interest, with attendant growth of the oil industry. Our building has been transformed by steel-and-concrete construction, and the production of steel has grown to colossal proportions. The moving picture has come to be one of our capital

industries, while baseball and golf, the football of the colleges, the new music-and-the-dance, have made their cheerful inroads upon our national seriousness and decorum.

These changes and countless others have laid their mark upon our educational institutions. For every industry and business is now on its way to school. Every major human interest is on the way. The pressure of modern life drives them, the prospect of help in their problems draws them. "To-day," as Mr. Charles M. Schwab has said, "industrial conditions favor the college man. Old crudities are disappearing; science is dethroning chance."

But the various occupations are most unequal in their present demand upon the universities, and they have advanced unequally in those demands within this twenty-eight year period. The most consistent enlargement seems to be that made by engineering in its various branches. Here the statistics are available since 1895. They show an increase from thirty-six hundred students in that year to thirty-one thousand in 1918, or 768 per cent.

In agriculture, under Federal leadership, great progress has been made in research and in popular or "extension" teaching, with more moderate but notable gains in attendance on regular courses of instruction of collegiate grade—from thirty-one hundred in 1895 to thirteen thousand in 1918, or 331 per cent.

In medicine and surgery there have been great improvements through research; the related field of nursing has shown great gains in its training schools: but the sharp advance of teaching standards has caused an actual decrease in the number of students in our regular medical colleges. The sixteen thousand in 1889-90 had fallen to thirteen thousand in 1917-18. In law on the other hand the number of students has more than doubled in this time, increasing from forty-five hundred to eleven thousand eight hundred, while the number of degrees granted in law has nearly overtaken the number granted in medicine.

In theology a moderate advance ($33\frac{1}{3}$ per cent), and likewise in pharmacy; in dentistry and in veterinary medicine a greater advance: meanwhile two great new groups of university schools have developed almost from the beginnings, namely those in commerce and in education.

It is plain to see that the demand for scientific teaching and research in these various fields is rising. It is a rising demand in all the other main fields of human enterprise. When the more backward occupations, those least professional at the present time, shall have come up to the full measure of educational requirement which their leaders already advocate, shall we not see other thousands of students lining up at the entrance of our colleges and universities? To those who look with alarm upon the recent growth of our student population, there can be offered only the ancient formula of consolation: "Cheer up, the worst is yet to come."

I have not yet stressed the after effects of the war. That tremendous experience has lent impetus to movements that had previously been on the way, it has rendered the academic world more plastic, it has tended to redistribute some of its emphases, but it has not given us a wholly new situation. A forward march has been interrupted by a charge and a bloody encounter, but now the march is resumed—with the old formation rearranged and reanimated. This does not mean that the war has had only slight influence upon our higher education; it does mean that many of its obvious effects are undoubtedly transitory, while its lasting effects will emerge but slowly, over a term of years. No one can yet tell with certainty what ancient good the new time will make uncouth, or what beauty and work of ancient hands it will reaffirm and establish. So far as concerns the number of students, we know there are many in our colleges to-day who would not have been there but for the war; but even if no war had intervened, the tendencies visible before the year 1917 or even 1914 gave promise of a vastly augmented attendance by 1920–21.

The inheritance of a college tradition in American families, after all, provides the core of the student body in all of our older colleges, including many by no means ancient. The college tradition in communities sweeps into the same current many whose fathers were not college men—but wish they were. The fact that every American family, on the average, is twice as rich as it was in 1890 encourages such ambition, in spite of the uneven distribution of this added wealth, and countless aspirations, social, athletic, economic, and spiritual all bend in the same direction.

Apart from all other influences which have been enumerated, the gathering momentum of this college tradition must be reckoned with. For all of these reasons, it seems inevitable and foreordained that a people such as ours must crowd to the limit whatever classic halls may be provided, bearing the magic name of university or college.

But will those classic halls be provided, with all of their attendant circumstance of costly laboratories, libraries, athletic fields, gymnasiums, auditoriums, dormitories, "unions"—and professors? Will the gate be kept open? That is a question for State legislatures and for private benefactors. They will, beyond question, keep the gate open, to almost any extent, as long as such a course wins popular approval and applause, and as long as the more discriminating among them are convinced that it is for the general welfare.

In what follows, I shall try to show that we do not have too many college students at the present time, and that the point of saturation in this respect is still a long way off.

It is not to be forgotten that a large part of the recent expansion of universities answers to the call of our industries. When General Pershing sent from France for two hundred thousand trained engineers, he simply condensed into an instant demand, under the awful urgency of war, the call that is going up here in time of peace; and not in the field of engineering alone, but in all of those branches of agriculture, trade, manufactures, sanitation, and government which are finding new coefficients in university studies. Of the newer expenditures for instruction and research, probably more than three-fourths are for departments which make a direct and visible contribution to our economic prosperity, and so increase the ability of States and industries to bear the costs of education; to say nothing of collateral thrift from studies less obviously utilitarian, and more cloistered with scientific and spiritual concerns.

But no large policy can be determined on the basis of immediate returns. In education as well as in business we must go deeper. The problem we are considering comes back to a question of our purpose in education as a national interest. Mr. Huxley added to his saying already quoted, that the educational lad-

der should be one "by which every child who had the strength to climb might, by using that strength, reach the place for which nature intended him." More recently Mr. Fisher, President of the English Board of Education, in presenting to Parliament the estimates for the year 1917, declared that, "We do not want to waste a single child. We desire that every child in the country should receive the form of education most adapted to fashion its qualities to the highest use." In these two utterances we have the substance of the democratic programme in education, whether it be British or American.

We do not intend to waste a single child, for our social fabric has need of them all. At the present stage of our development in America, an overproduction of man power is unthinkable. But wherever human faculty and talent are required, the demand is for the service they can render when fitly trained, and not for the untrained promise of service. In such training lies our great hope of national well-being. A people educated according to their in-born capacities may not be a docile people, but in the long run they will be the strongest and happiest people both collectively and individually.

This view is frankly utopian. When we are at sea we get nowhere unless we observe the heavens; and wise men follow a star. But suppose we had this ideal adaptation of training to the several abilities of our citizens: How many of them would land in our universities? Would there be more of them or less than we have at the present time?

It has long been the hope of educators that they may find ways of discovering the hidden talents of their pupils, with a view to leading them in the several ways that nature intended they should follow. You will find this purpose expressed as far back as the age of Shakespeare, and doubtless as far back as the age of Pericles. Less than a hundred years ago there were publicists of high standing who believed that phrenology would solve this problem. It was a false lead, but good came from it. Our modern psychologists have been somewhat more successful. They have had the chance to try out their tests on a tremendous scale under authority of the War Department of our Government. These tests, with all of their obvious limitations, are be-

yond question to be taken seriously; not as if they "had already attained," but as a hopeful beginning.

Majors Yoakum and Yerkes, in their little book on *Army Mental Tests*, emphasize the fact that these relate to intelligence only, and add the expressed opinion of Colonel Bingham that they cannot help to-day in specific vocational guidance. Dealing then with the measure of mental ability only and not with its varieties, the ratings are recorded in eight grades or degrees, designed by letters of the alphabet. The highest, those of grade A, are made by men of "high officer type" in the army, who have "the ability to make a superior record in college or university." Grade B represents intelligence that is superior but less exceptional. The men making this grade are of the commissioned or non-commissioned officer type in the army, and "capable of making an average record in college." Of the drafted men examined, from four to five per cent made grade A and from eight to ten per cent grade B.

These figures would indicate that from twelve to fifteen per cent of our male population of the ages represented by the draft have the mental capacity to pursue a college course. Strictly speaking, they prove nothing as yet, for the tests are still in a provisional stage, which calls for revision and redirection. But they lend weight to the surmise, based upon a general review of the field, that the number of our citizens who could pursue advanced studies with profit to themselves and to the community, is far greater than the number now enrolled in our colleges.

We may at least estimate that eventually something over ten per cent of our adult population will be equipped with education, in some one or other of its forms, above the high school grade, and that our industries and professions will require and will absorb this output of highly trained men and women; or that at any given time not less than one per cent of our total population will be enrolled as students in higher institutions of learning. It seems not unlikely that this proportion may be realized within the next twenty to thirty years, if the tendencies already well established shall continue their sweep, undisturbed by new world currents or by national disaster.

But when it has been shown that a further increase of student

registration is a legitimate expectation, we have only half the story. This is a case in which the corollaries are of greater importance than the original theorem. Among them are the following:

1. With greater numbers, selection becomes of greater importance. If our object were simply to keep out of college as many students as possible, we could accomplish it by a mechanical system of entrance examinations. But the problem is not so simple. A due sense of public responsibility would find expression in three purposes: First, to admit to college all applicants who can pursue a course of higher studies with advantage to themselves and to the community; secondly, to enable matriculants to find the departments or divisions or schools in which they can pursue their studies with greatest advantage to themselves and to the community; and thirdly, to reject all other applicants, either at the beginning or, in doubtful cases, after fair probation—not, however, as casting them into outer darkness, but with some guidance as to ways in which their mode and measure of ability may find its use and training. For the nation at large, no less a programme than this will suffice. But its definitions are still uncertain and the responsibility for its execution is widely dispersed. Nevertheless we must stumble on in this direction until we find the road.

2. How shall we find teachers—as many and as good as are required—for this multitude of students? Our industries and our public will meet with disappointment if they look to the colleges with enlarged expectations and find there a dearth of formative teaching. We are not poor in the promise of great teachers. Among our graduate students and our younger college teachers of the present day, even in a limited search, you will encounter those who seem destined to maintain the finest traditions of the teaching profession. But for so large an undertaking as now opens out before us, when every walk in life is bidding for our strongest men, it is hard to see where we are to find one-quarter of the teaching force, in its higher and highest grades, which these coming decades will require of us.

3. There is increased danger that the superior abilities of a few students may be disregarded or smothered, under the necessity of

caring for the many. How is training to be intensified instead of being dissipated? The suggestion occasionally made that honor colleges or honor departments be maintained is a two-edged proposal. It carries dangers a-plenty. But in some form or other the purpose of such schools of higher stimulus and opportunity must be attained. It would seem that a college like Amherst or Haverford or Vassar might be so directed as to meet this need in part. Why may not a great university have a Balliol among its colleges? The danger of intellectual snobbery is always present. But we waste our man power when we fail to demand the best of our best students as well as when we offer the best to those who are intellectually or morally incompetent. Is it beyond reason that a chapter of Phi Beta Kappa should be made to function as a real fraternity for intellectual leaders, juniors and seniors, instead of being for them a mere *terminus ad quem*? Here again the trail is not clear, but, like Sentimental Tommy, we must "find a w'y."

There are too many college students if their mere numbers prevent us from giving a fit training to the destined leaders of men within the next generation. But we cannot admit this without confessing a certain bankruptcy of inventive resource, a limitation which as thinking men we shall not accept.

It is all a national problem. While its solution may rest upon separate institutions, our thought on the subject must be national. No college liveth unto itself. Considerations of national prosperity and well-being will come to the fore, as appears in certain paragraphs of this article. But the prime consideration is the making and the maintenance of our national spirit at its best, the consolidation of our gains in right thinking, in righteousness and beauty. For these ends, our number of college students is not too great, if only we can provide them all with the high discipline of genuine teaching.

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